

# Evaluation of breast cancer awareness among women presenting with newly diagnosed breast disease at Universitas Hospital (Bloemfontein, South Africa)

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## Abstract

**Background:** This study aimed at assessing breast cancer awareness among women presenting with newly diagnosed breast disease at Universitas Hospital in Bloemfontein, South Africa. The breast cancer awareness of the women, in turn, was related to their screening practices and the stage of breast cancer at presentation. Recommendations to address the clinical implications of the findings of this study were then suggested.

**Methods:** Reports of data on the number of breast cancer awareness campaigns held and the number of people reached during the period April to June 2006 were acquired from the main campaign organiser, CANSA. Data were also obtained by means of interviewer-administered structured questionnaires, from consenting women (n = 56) presenting with newly diagnosed breast disease at Universitas Hospital during the period May 2006 to April 2007. The study was approved by the Ethics Committee of the Faculty of Health Sciences of the University of the Free State.

**Results:** Despite aggressive nationwide public education on breast cancer and on the benefits of screening by CANSA breast cancer awareness, the examination and screening practices of women presenting with newly diagnosed breast disease at the Universitas Hospital were generally low. Most of the women interviewed presented with advanced breast cancer (stage 2 and 3), and reported that their healthcare professionals never initiated clinical breast examinations or mammograms.

**Conclusion:** This study has revealed low breast cancer awareness among women presenting with newly diagnosed breast disease at the Universitas Hospital, and hence low rates of self- and clinical examinations of the breast and low mammographic screening rates. This may be attributed to a general lack of awareness of the rising incidence of breast cancer in the Free State among both the public and healthcare professionals.

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## Introduction

According to the National Cancer Registry of South Africa, a body that collects information on cases of cancer diagnosed from all the country's haematology and cytology laboratories, breast cancer is the leading cause of death from cancer among South African females.<sup>1,2</sup> Of significance at present is the fact that South African doctors report to have seen an alarming increase in the incidence of breast cancer among young (< 35 years) black women, a group that was previously considered to have the lowest risk of breast cancer. Reports also show that the few young black women who get breast cancer are more likely to be diagnosed with a more virulent form of the disease.<sup>3</sup> Moreover, it appears that the majority of South African women generally have limited knowledge of their relative risk of developing breast cancer, of associated risk factors and of the diversity of potential breast-cancer-related symptoms.<sup>4</sup> Older women, especially black women, are particularly poor at identifying symptoms of breast cancer, the risk factors associated with breast cancer and their personal risk of developing the disease, hence they seek medical assistance late and consequently exhibit a relatively high mortality.<sup>2,4</sup> These findings therefore warrant an intervention programme targeting women of all races and ages, given that both race and age are risk factors both for developing breast cancer and for subsequent delayed or early presentation.

Based on the above information, the country's ministry of health and the Cancer Association of South Africa (CANSA) found it necessary to inform the public that more effective treatment may result from early detection and from availing themselves early for treatment, thereby leading to a reduction in pain and suffering and a significant decrease in the loss of life. Consequently, the above two bodies have engaged in breast cancer awareness campaigns in partnership with various organisations.

The purpose of the various breast cancer awareness campaigns is to increase awareness of early breast cancer detection services among South African women, and especially to reduce, if not eliminate, cultural and economic barriers to breast screening services.

Like elsewhere in the world, October has been designated "Breast Cancer Awareness Month" in South Africa, and activities then include a nationwide drive by government and private healthcare structures to raise awareness of this debilitating disease across all races and class structures. In this regard, the outreach activities of the government (through the Department of Health), in collaboration with the Cancer Association of South Africa, amongst others, have included the following:<sup>5</sup>

- Annual health awareness campaigns for public education. These are educational sessions in the form of talks, videos, seminars, pamphlets and posters informing the public in general about the most prevalent cancers in South Africa. Media campaigns have been introduced by means of newspaper articles, advertisements and interviews broadcast on TV and radio.
- Early detection and prevention campaigns provide counselling, appointment-making assistance and referrals to screening services. Individuals are informed about health centres offering these services in their vicinity.
- Health exhibitions in the form of health fairs and contests are held, and printed educational materials are always handed out during these activities.

The objective of this study was to evaluate the extent of breast cancer awareness and breast cancer screening practices among women in

the Free State province by focussing particularly on one group, namely women presenting with newly diagnosed breast disease at one provincial hospital for a period of one year. The implications of the findings of this study are also discussed.

## Methods

Reports of data on the number of breast cancer awareness campaigns held and the number of people reached during the period April to June 2006 were acquired from the main campaign organiser, CANSA.

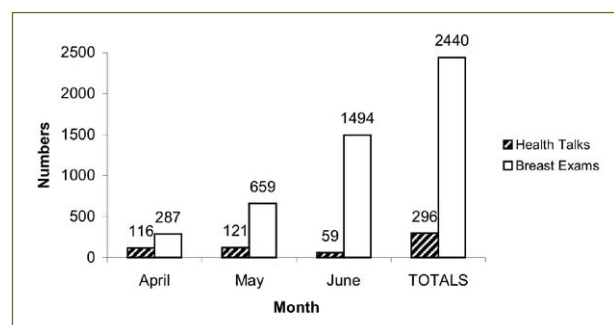
Data were also obtained by means of interviewer-administered structured questionnaires from consenting women (n = 56) presenting with newly diagnosed breast disease at the Universitas Hospital (Bloemfontein, Free State) during the period following the breast cancer awareness campaign (May 2006 to April 2007). The questions about breast examination and mammography were intended to assess the knowledge, personal attitudes and practices of breast cancer examination and screening among this group of women. At the end of the study, the pathology records of the enrolled patients were accessed and compared with the data from the awareness analysis. The data were summarised by means of percentages.

## Results

### Breast cancer awareness campaigns during the period April to June 2006

The results of the three-month breast cancer awareness campaign during the year 2006 are shown in Figure 1. This was the major campaign organised in the Free State by CANSA for that year. CANSA also reported that requests were received throughout the year from groups asking representatives of CANSA to give presentations to their members (data not shown). Although no method of assessment was described, CANSA reported that it had had a successful campaign, in which public turn-up at health talks and their readiness to receive the message were high.

**Figure 1:** The number of health talks and the corresponding number of clinical breast examinations performed during the breast cancer awareness campaign in the Free State by CANSA in 2006.



### General awareness of breast cancer

The questions about breast examination and mammography were intended to assess the knowledge, personal attitudes and practices of breast cancer examination and screening among the 56 women (mean age = 58 yrs) who presented with newly diagnosed breast cancer. The results are shown in Table I. An analysis of the results shows that only 23% of the respondents did regular breast self-examination (BSE), while 25% reported previously having had a clinical breast examination (CBE) at least once.

**Table I:** Breast cancer examination and screening practices among the 56 women who presented with newly diagnosed breast cancer at the Universitas Hospital (Bloemfontein, Free State) during the period May 2006 to April 2007. Frequencies are described in terms of examination procedure by breast cancer family history

Examination procedure	Frequency	Breast cancer family history		Total	%	p-value
		No	Yes			
Breast self-examination	never	23	16	39	70	0.0906
	often	8	5	13	23	
	rarely	4	1	4	7	
Clinical breast examination	never	27	15	42	75	0.0155
	once	1	3	4	7	
	yearly	6	3	9	16	
	every 6 months	0	1	1	2	
Mammogram	never	25	18	43	77	0.0937
	only once	2	0	2	4	
	yearly	7	4	11	20	

When looking at the stage of breast cancer at the time of diagnosis (see Table II), it is obvious that only a few women (5%) presented with early breast cancer (grade I). This further emphasises the lack of awareness of the possibility of the development of breast cancer and hence presentation at a late stage by these women. It is also apparent that the majority of coloured women (six out of seven) presented with invasive cases of the disease that were also at an advanced stage, while there was an equally wide variety amongst black and white women.

**Table II:** Breast tumour type and stage at time of diagnosis

Race/ Ethnicity	Type of breast cancer						Stage at diagnosis (Grade**)					
	In situ cases (n)		Invasive cases (n)		Mixed (n)		I		II		III	
	n	%	n	%	n	%	n	%	n	%	n	%
All races *	4	7	49	88	7	13	3	5	23	41	23	41
Black	1	2	21	38	1	2	1	2	10	18	9	16
Coloured	1	2	6	11	0	0	1	2	0	0	5	9
White	2	4	22	39	6	11	1	2	13	23	9	16

\* Data of three participants is missing. \*\*Ungraded in some participants.

## Discussion

Although CANSA reported that it had had a successful campaign, they also reported that it had been difficult for them to assess the ultimate success of their campaigns in terms of increased levels of screening among women aged 40 and older in the area where the programme was presented. It had also been difficult for them to determine if there was an improvement in the stage of disease at presentation compared to before the campaign and if there was a change in the pattern of presentation of those previously regarded as being affected the most. This was due mainly to the fact that data collection from hospitals and other healthcare centres is poor and difficult to access. Therefore, at the time of the study the organisation could only rely on their assessment of the campaigns in terms of public turnout and enthusiasm at health talks and exhibitions, which may not necessarily imply positive behavioural change and the adoption of good breast cancer examination and screening practices.

Despite aggressive nationwide public education on breast cancer and the benefits of screening by CANSA, the breast cancer awareness, examination and screening practices of women presenting with newly diagnosed breast disease at the Universitas Hospital were generally

low in 2006, as shown in Table I. Seventy per cent of the 56 women reported not ever having done breast self-examination and, in addition, 41% of them still presented with grade III breast cancer. While one could argue that the information displayed is not a true reflection of the Free State province, since not all hospitals in the province were included in the study, it is worth mentioning that, with the exception of the very few private hospitals, Universitas Hospital is the sole hospital with mammography facilities and breast cancer experts in the province. Universitas Hospital therefore is the referral hospital for breast disease in the province and hence one can confidently assume that data about breast cancer from this hospital represent the general status of the province. Similarly, a low percentage of 25% of the women reported ever having had a clinical breast examination, while only 20% had ever had a yearly mammogram. These women reported further that their healthcare professionals never initiated any of these two procedures. It is difficult to establish at this stage if this was due to a lack of breast cancer awareness or erroneous conduct among these health professionals. It does, however, reflect negatively on the general breast cancer awareness of health professionals in the Free State province. This is a dismal situation, since healthcare workers (both nurses and physicians) are often looked upon as a direct source of medical information by the public and patients. Therefore, if their knowledge is lacking or their conduct is erroneous, it could perpetuate common misconceptions, resulting in delayed diagnosis and treatment, as observed in most of the patients in this study.

For the women aged 40 years and older, only 35% (none of whom were black) had gone for a screening mammogram on their own initiative, motivated by having had a relative or friend diagnosed with breast cancer. Of those who had not gone for a screening, the commonest reasons cited were 'not knowing about it' (mostly black women) and 'not having thought about it' (coloured and white women).

## Conclusions

This study has revealed that the Free State province still has low BSE, CBE and mammographic screening rates. These low rates are attributed to a lack of awareness of the rising incidence of breast cancer in the province by the public in general, and probably also by the healthcare professionals. The study would appear to suggest that there is a need for an aggressive education campaign targeting both groups if breast cancer awareness is to be realised in the province. It is worth noting that international trends show that since introducing breast cancer screening programmes, many countries have reported a decline in deaths from breast cancer.<sup>6,7,8,9</sup> The general heightened cancer awareness has even managed to reduce the rate of persistent differences in breast cancer mortality usually seen among various racial/ethnic groups,<sup>9,10</sup> which is of great relevance to the multiracial nature of South Africa. However, it is also noted that the effectiveness of screening as a way to reduce cancer mortality lies in its being used widely and regularly,<sup>9,11</sup> and this would pertain only to women who are well informed about breast health.

A community-oriented educational intervention programme emphasising proper techniques possibly could bring about the desirable behavioural change among women, while the health professionals should be encouraged to initiate BSE often and recommend mammograms to their female patients. Research has shown that women who receive information on breast health from a healthcare professional are more knowledgeable, confident and likely to put the knowledge into practice than those who receive the information from other sources; hence

the emphasis on healthcare professionals' advocating breast cancer screening among their patients.<sup>12,13</sup>

### Clinical implications and recommendations

#### 1. Cancer screening

At present, public national breast cancer screening or prevention programmes do not exist in South Africa, even though the practice is embraced by the country's health system.<sup>14</sup>

#### 2. The lack of facilities impacts negatively on the outreach activities and thus necessitates consideration of the following points:

- a. Not every public hospital has a mammogram machine, thus information on which hospitals do have such machines must be made available to the public.
- b. The cost of testing, and the days and times that testing takes place, should be made known. This is vital information for personal financial planning purposes.
- c. Increased availability of mobile mammogram services could be considered, especially during Breast Cancer Awareness Month.

#### 3. Training in cultural diversity for the campaign representatives

Social determinants and barriers that affect screening practices include geographic isolation, religion and cultural beliefs, education, traditions and position in social hierarchy. As a result, women of different ethnic backgrounds respond differently to breast and gynaecologic cancer screening practices.<sup>15</sup> Therefore, if breast cancer awareness campaigns are to succeed there should be culturally competent campaigners and healthcare providers. These are committed healthcare workers who are familiar with the different value systems and traditions of the cultural groups they serve and are able to communicate with the patients to ensure the best possible clinical outcome. Culturally competent health care can improve health outcomes by making services available in the language spoken by patients and/or by recognising and accommodating the cultural beliefs and practices of the community served.

#### 4. Development of partnerships

There is no denying the fact that many nongovernmental and corporate organisations do take part in the several breast cancer awareness-raising campaigns organised in the country. However, community-based programmes should be the cornerstone of any effort attempting to remedy health disparities. The strongest partnership of this nature could be formed with the help of an established coalition and a trained core working group that consists of the community health advisors, church representatives, and healthcare professionals. A partnership of this kind would (a) build community capacity by training community volunteers to serve as community health advisors, (b) promote breast examination and screening, and (c) increase breast cancer awareness and control among community leaders and policy makers.

It is important to continue educational work and intervention measures concerning breast cancer prevention, with special attention being paid to the most vulnerable groups of women. Practitioners and other healthcare workers should continue to remind and update women about breast disease, and women's cancer-screening practices should be reinforced. In particular, nurses, who greatly influence women's health care, must remain current in their knowledge of breast disease, screening and treatment. Outreach programmes need to be tailored to the target communities, as there are significant differences among groups of women (e.g. urban versus rural, black and white, educated and uneducated). Targeted outreach programmes should work in tandem with other social programmes to increase access to ensure that both personal and logistical barriers to screening are addressed.

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